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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,928	10/12/2000	Arihiro Takeda	2803.64683	7460

7590 03/09/2005

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EXAMINER

NGUYEN, DUNG T

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/689,928

Applicant(s)

TAKEDA ET AL.

Examiner

Dung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 150, 151, 154-162, 164-166 and 168-170 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 164-166 and 168-170 is/are allowed.
6) ☒ Claim(s) 150, 151 and 154-162 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/12/04; 7/06/04
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Applicants' amendment dated 05/20/2004 has been received and entered. By the amendment, claims 150-151, 154-162, 164-166 and 168-170 are now pending in the application.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 150-151, 154-162 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Koma, US Patent No. 5,608,556, in view of Hirata et al., US Patent No. 5,953,093, as stated in the previous office action.

Regarding the above claims, Koma disclose an active matrix liquid crystal display (LCD) device (figures 4-6 and 8-10) comprising:

- . a first substrate (10) and a second substrate (30);
- . a liquid crystal (40) having a negative dielectric constant anisotropy;
- . a thin film transistor (TFT) forming on the first substrate;
- . first and second domain regulating means for regulating azimuths of orientations of the liquid crystal when a voltage is applied to the liquid crystal (figure 5);
- . the first and second domain regulating means are arranged on the substrates so that the first domain regulating means *substantially surrounds* the second domain regulating means in the display areas of the pixels (figure 6);
- . the first and second domain regulating means consist of slits (33) provided on the substrates.

However, Koma does not disclose the first and second domain regulating means consists of protrusions provided on the first substrate and/or the second substrate and the first domain regulating means substantially surrounds the second domain regulating means in each pixel in a display area. Hirata et al. do disclose a domain regulating means consists of protrusions (figure 19) and/or slits (figure 22) provided on substrates as well as a first domain regulating means substantially surrounds the second domain regulating means in each pixel in a display area (e.g. figures 12 and 14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Koma's LCD device including first and second means being protrusions and/or slits as well as the first domain regulating means substantially surrounds the second domain regulating means in each pixel in a display area as shown by Hirata et al. in order to improve viewing angle characteristic for all viewing direction without degrading the display quality of an LCD device (col. 7, lines 35-37).

Allowable Subject Matter

3. Claims 164-166 and 168-170 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:

None of prior art discloses or suggests an LCD device in which a domain regulating means is a protrusion-like structure including wherein said domain regulating means includes a first conductive layer of a material that is the same as that of a gate electrode of the TFT, a first insulating layer of a material that is the same as that of a gate insulating layer of the TFT and which covers said first conductive layer, a second conductive layer of a material that is the same as that of source/drain electrode of the TFT and which is on said first insulating layer, and a

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second insulating layer of a material that is the same as that of a protection insulating layer of the TFT and which covers said second conductive layer as set forth in claim 164 or the domain regulating means is a protrusion-like structure arranged within slits provided in the pixel electrodes as set forth in claim 168.

Response to Arguments

5. Applicant's arguments filed 05/20/2004 have been fully considered but they are not persuasive.

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the first domain regulating means surrounds the second domain regulating means) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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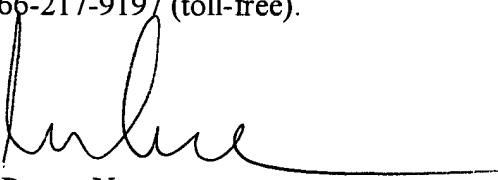
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN
03/03/2005



Dung Nguyen
Primary Examiner
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